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(54) **METHOD FOR PRODUCING SYNTHETIC QUARTZ GLASS GRANULES**

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See application file for complete search history.

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(57) **ABSTRACT**

The production of quartz glass granules comprises the granulation of pyrogenically produced silicic acid and the formation of a SiO_2 granulate (**9**), the drying and cleaning of the SiO_2 granulate (**9**) by heating in an atmosphere containing halogen, and the vitrification of the SiO_2 granulate (**9**) under a treatment gas which contains at least 30% by volume of helium and/or hydrogen. This process is time-consuming and expensive. In order to provide a method which, starting from a porous SiO_2 granulate (**9**), allows the cost-effective production of dense, synthetic quartz glass granules suitable for melting bubble-free components of quartz glass, the invention proposes that the cleaning and vitrification of the SiO_2 granulate (**9**) and a post-treatment of the vitrified quartz glass granules are carried out in each case in a rotary tube (**6**) of a rotary kiln (**1**), said rotary tube rotating about a central axis (**7**), wherein the rotary tube (**6**) comprises an inner wall made of a ceramic material during vitrification, and wherein the vitrified quartz glass granules are subjected to a post-treatment during a treatment period of at least 10 minutes in an atmosphere which contains less than 20% of helium or hydrogen at a treatment temperature of 300° C. or more.

24 Claims, 1 Drawing Sheet